

REMARKS

Careful consideration of this application in view of the present remarks is most respectfully requested. This is a response to the Office Action dated December 21, 2006. Claims 1-21 and 25-27 are pending in the present application. The specification has been amended on page 14 to address the grammatical error highlighted by the Examiner in paragraph 5 of the Office Action, mooted this objection. Claims 4 and 6 are noted as allowable, but are objected to as being dependant on a rejected base claim. These claims have been left in dependent form as it is respectfully asserted that the base claims are allowable in their current form.

The Present Application:

To assist in the following discussion, it may be helpful to revisit some aspects of the disclosure. It is noted however, that the following should not be used to interpret the scope of or otherwise limit the invention, as the following sets forth details of the preferred embodiment, many of which are not required elements of the claimed invention.

As noted in the disclosure, an IP-layer based model for network selection and multihoming is provided that enables a flexible and secure dynamic selection of one or more serving networks to use. The IP-layer based model according to one example consists of three phases. Network information is advertised to a client node in a first phase, the client node is authenticated and authorized for use of an access router in the second phase, and a secure tunnel is established between the client node and the access router in the third phase.

Advertising network information is discussed with respect to the example on page

9 of the disclosure, where network layer protocols may be used to advertise serving network information to the client nodes on access network 101 (shown in Fig. 1, e.g.). When the routable networks are ISP or NAP networks, a provider identifier and provider name data pair may be advertised per each service provider. When the serving networks are VLANs, a VLAN identifier and a VLAN name may be advertised per VLAN. The identifier is a unique identifier that is used to identify the provider/VLAN and the name is a character string that represents the name of the provider/VLAN.

Thus, client nodes are able to selectively establish connectivity to one or more serving networks. In the example shown in Fig. 3 and discussed on page 17 of the disclosure, client node 10 is able to selective establish connectivity to one or more of the networks owned by ISP1, ISP2, ISP3 or NAP 301.

Rejections Based On References:

The discussion now turns to the prior art rejections. In sections 7-21 of the Office Action, claims 1, 2, 5, 9, 10, 13, 17, 18, 20, 21 and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Boden et al. (U.S. PGPub 2003/0145104). This rejection is respectfully traversed.

This rejection is improper at least for the reason that Boden et al. was *not* described in a printed publication (or patented) more than one year prior to the date of this application, (as required by 35 U.S.C. section 102(b)). Boden et al. has a publication date of July 31, 2003. The filing date of the present application is January 22, 2004. Because the present application was filed within a year of the publication of Boden et al, the applicants respectfully assert that this rejection is improper, and request that the Examiner reconsider and withdraw this rejection for this reason alone.

Claim 1:

In addition, it is respectfully asserted that the teachings of Boden et al. do not anticipate the claimed invention. Claim 1 recites "sending serving network provider advertising information to said client node". Boden et al. does not teach at least this limitation.

Boden et al. is directed to a system for a local network which allows communication with a plurality of overlapping remote networks. A plurality of overlapping connections are received at a local gateway from remote networks, each including an inbound packet having a source IP address. For each connection, the source IP address is bound with an internal routable and system-wide unique source IP address from an internal address pool in a bind table. Outbound packets are processed through the bind table to determine the destination IP address corresponding to correct one of the plurality of overlapping connections.

In the rejection, the Examiner highlights item 42 and node A1 in Figure 4 of Boden et al. as meeting the recitation of "providing an access network to which a client node has a network connection" recited in claim 1. In addition, the Examiner highlights item 52 (VPN gateway A) as meeting the recitation of "providing at least one access router having a network connection to said access network and having a network connection to at least one serving network".

The Examiner highlights paragraphs 62-72 of Boden et al. as meeting the recitation of "sending serving network provider advertising information to said client node; receiving from said client node serving network provider information specifying a serving network to which said client node desire access".

Paragraph 62 of Boden et al. states:

[0062] When an inbound IPsec'd packet 100 (a packet with an ESP or AH header following the IP header) is successfully decapsulated (means the AH or ESP (or both) headers are successfully processed and removed, including a tunnel IP header if it exists), it is checked to determine if VPN NAT (destination-in or source-in) is necessary. If source-in is required, then a table-lookup is done in the VPN NAT address bind table 58 to see if an entry 110 already exists for this packet 100; that is, a table entry with 'right-hand-side' (rhs) 116 equal to the packet sip 102. If an entry 110 is found, source-in NAT is done by changing the packet's inbound sip 102 to the entry lhs 114.

The subsequent paragraphs of Boden et al. discuss details of a VPN NAT address bind table (paragraphs 63-64), and a function for responding when a table entry is not found (starting at paragraph 65).

However, there is no teaching of "sending serving network provider advertising information to said client node" as recited by the claim 1. The Examiner's reliance on paragraphs 62-72 as teaching this limitation is unclear. If the Examiner believes that the reference to a "VPN connection name 70" (e.g., in the VPN NAT Address Bind Table) (e.g., in TABLE 2) qualifies as the recited "network provider advertising information", it is noted that this element is part of the VPN NAT Address Bind Table – part of VPN gateway 52 (see, paragraph 39 of Boden et al.), and not information sent to the client node (Applicant's understand the Examiner interprets the client node as met by node A1). Alternatively, if the Examiner believes that a packet's inbound sip 102 qualifies as the recited "network provider advertising information", it is noted that such information is changed to the lhs 114 entered in the table, and thus under any interpretation, cannot be viewed as being sent to a client node.

Careful review of Boden et al. fails to teach any “sending serving network provider advertising information to said client node” as recited by claim 1. For at least this additional reason, the Examiner is respectfully requested to reconsider and withdraw this rejection. If the Examiner maintains this rejection, it is respectfully requested that the Examiner clarify which elements of Boden et al. the Examiner believes corresponds to the recited claim limitations.

Claims 2, 5, 9, 20, 13, 17, 18, 20 and 21 depend from claim 1 and are allowable at least for the reasons set forth above with respect to claim 1.

Claim 25:

Claim 25 recites “receiving from said client node serving network information specifying a serving network to which said client node desires to have access”. The Examiner identifies paragraphs 62-72 of Boden et al. as meeting this limitation. These paragraphs were discussed in detail above. It is noted that these highlighted paragraphs address the actions of VPN gateway A 52 with regards to an inbound IPsec'd packet 100. There is no discussion of a “receiving from a client node” the recited serving network information as required by claim 25. Because Boden et al. fails to teach this limitation, it is respectfully requested that the Examiner reconsider and withdraw this rejection. Again, if the Examiner maintains this rejection, it is requested that the Examiner clarify which elements of Boden et al. the Examiner believes corresponds to the recited claim limitations.

Claims 26 and 27 depend from claim 25 and are allowable at least for the reasons set forth above with respect to claim 25.

Claims 3, 7, 8, 11, 12, 14-16, and 19:

In sections 22-34 of the Office Action, claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boden et al and Sakov et al (US PGPub 2002/0196802).; claims 8, 11, 12, 14-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boden et al. and Forslow (US PGPub 2002/0069278); and claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boden et al. and Le et al. (US PGPub 2004/0019664). These rejections are respectfully traversed.

Claims 3, 7, 8, 11, 12, 14-16, and 19 depend from claim 1. The Examiner alleges the teachings of Sakov et al., Forslow and Le et al. teach limitations of the dependent claims which are missing from Boden et al., and asserts these limitations would have been obvious to use with the system of Boden et al. However, these secondary references fail to correct the deficiencies of Boden et al. noted above with respect to claim 1. Thus, the applicants respectfully request the Examiner to reconsider and withdraw these rejections.

Conclusion

Applicant respectfully submits that the present application is in condition for allowance, which action is courteously requested. Please charge any shortage in fees that may be due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account 50-4080.

Respectfully submitted,

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